

**Commonwealth of Kentucky**  
**Natural Resources and Environmental Protection Cabinet**  
**Department for Environmental Protection**  
**Division for Air Quality**  
**803 Schenkel Lane**  
**Frankfort, Kentucky 40601**  
**(502) 573-3382**

## **AIR QUALITY PERMIT**

**Permittee Name:** **Intertape Polymer Group**  
**Mailing Address:** **2000 Enterprise Drive, Richmond, Kentucky 40475**

**Source Name:** **Intertape Polymer Group**  
**Mailing Address:** **2000 Enterprise Drive**  
**Richmond, Kentucky 40475**

**Source Location:** **2000 Enterprise Drive, Richmond, Kentucky**

**Permit Type:** **Federally-Enforceable Part 70**  
**Review Type:** **PSD Synthetic Minor, Title V**

**Permit Number:** **V-00-044**  
**Log Number:** **G417**  
**Application**  
**Complete Date:** **February 9, 2000**

**AFS Plant ID #:** **21-151-00052**  
**SIC Code:** **2671**

**Region:** **Bluegrass**  
**County:** **Madison**

**Issuance Date:** **December 29, 2000**  
**Expiration Date:** **December 29, 2005**

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**John E. Hornback, Director**  
**Division for Air Quality**

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## **SECTION A - PERMIT AUTHORIZATION**

Pursuant to a duly submitted application which was determined to be complete on [February 9, 2000](#), the Kentucky Division for Air Quality hereby authorizes [construction/operation](#) of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first having submitted a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in the Regulation 401 KAR 50:035, Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS**

**EP01 (1-1, 1-2, 1-3, 1-4, 1-5, 1-6, SRS-1 through 8, SRS-9, SRS-10, SRS-11, 1-HM-2, 1-HM-3, 1-HM-4, and 1-HM-5)**

**Pressure Sensitive Tape Coating Line #1 and Supporting Facilities.**

### **Description:**

EP01 is a 60 inch wide multifunction coating line for manufacture of pressure sensitive tape with supporting mixing, extruding, and storage.

The coating line consists of the following units in the following order:

- 1<sup>st</sup> A paper or film unwind station.
- 2<sup>nd</sup> A corona treater (emission unit 1-1) that is utilized only on certain film tapes.
- 3<sup>rd</sup> A gravure release coating applicator (emission unit 1-2).
- 4<sup>th</sup> Oven #1 (emission unit 1-3) with 1 burner rated at 0.714 MM Btu/hr.
- 5<sup>th</sup> A roll coating acrylic tie coat applicator (emission unit 1-4).
- 6<sup>th</sup> Oven #2 (emission unit 1-5) with 1 burner rated at 14.2 MM Btu/hr.
- 7<sup>th</sup> A fiber reinforcing applicator.
- 8<sup>th</sup> A roll coating hot melt adhesive top coat applicator (emission unit 1-6).
- 9<sup>th</sup> A chiller cylinder.
- 10<sup>th</sup> And finally, a tape rewind station.

The ovens utilize natural gas.

The release coating applicator (emission unit 1-2) is supported by a 175 gallon mixing tank (emission unit SRS-9) and mixing room (emission unit SRS-10) with a 6.6 gallon holding tank (emission unit SRS-11) and surge pump. Emission units 1-2, SRS-9, SRS-10, SRS-11, and oven #1 (emission unit 1-3) are vented to an Amcec Model A-1874 regenerative carbon bed adsorber (emission units SRS-1 through 8) that has a designed adsorption efficiency of better than 99% (depending on actual operation, control efficiency ranges from 30% to better than 90%).

The acrylic tie coat applicator (emission unit 1-4) is uncontrolled and supported by a 10,000 gallon bulk storage tank and a spare 10,000 gallon bulk storage tank.

The hot melt adhesive applicator (emission unit 1-6) is uncontrolled. It is supported by an extruder, a 30,000 gallon storage tank (emission unit 1-HM-3), a surge tank with a 700 gallon maximum utilization (emission unit 1-HM-4), an extruder feed hopper (emission unit 1-HM-2) controlled by a baghouse, and an unload vacuum pump (emission unit 1-HM-5) controlled by a cyclone for movement of plastic resin pellets from railcar or truck into the extruder feed hopper.

The baghouse on the extruder feed hopper (emission unit 1-HM-2) is 1,900 scfm, has reverse jet bag cleaning, and has been assumed to have an overall control efficiency of 95%.

The cyclone on the unload vacuum pump (emission unit 1-HM-5) is 240 acfm and has been assumed to have an overall control efficiency of 98%.

Construction commenced: October 1994.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****APPLICABLE REGULATIONS:**

Regulation **401 KAR 60:005**, 40 CFR Part 60 standards of performance for new stationary sources, applies to sources that are subject to regulation **40 CFR 60 Subpart RR**, Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations, and other non-applicable subparts of 40 CFR Part 60.

Regulation **401 KAR 59:210**, New fabric, vinyl and paper surface coating operations applies to each affected facility part of a major source in a county designated attainment commenced on or after June 24, 1992.

Regulation **401 KAR 59:010**, New process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

**1. Operating Limitations:****40 CFR 60 Subpart RR**

- (1) 40 CFR 60.445(c) requires installation, calibration, maintenance, and operation of a monitoring device for indicating the cumulative amount of solvent recovered by the solvent recovery device over a calendar month. And, the monitoring device shall be accurate within  $\pm 2.0\%$ .

**401 KAR 59:210**

The following is required as part of compliance with 401 KAR 59:210, however, compliance may be demonstrated through an alternative. See Section H, Alternate Operating Scenario # 1, for alternative limitation.

- (2) In accordance with Sections 4(5) and 6(1) of 401 KAR 59:210, the daily average VOC content of coatings delivered to the applicators on the coating line shall be less than 2.9 lbs/gal, excluding water and exempt solvent.

**Compliance Demonstration Method:**

Use the following equation (or equivalent) to determine compliance.

$$\text{Ratio of VOCs input to the volume of coatings applied minus water and exempt solvent} = \text{VOC input} / (\text{Volume applied} - \text{water \& exempt solvent})$$

Where:

$$\text{VOC input} = S \text{ [gals of coating input to the line} \times \text{VOC content (in lbs/gal) of coating]}$$

and

$$\text{Volume applied} - \text{water \& exempt solvent} =$$

$$S \text{ (gals of coating input to the line} - \text{gals of coating input to the line} \\ \times \text{the water volume fraction of the coating} - \text{gals of coating input to the line} \\ \times \text{the exempt solvent volume fraction of the coating}).$$

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****1. Operating Limitations (Continued):****401 KAR 59:010**

The following limit shall apply to assure compliance with Emission Limitations (2) and (3).

(3) Emission unit 1-6, 1-HM-2, and 1-HM-5 shall be operated and maintained consistent with manufacturer recommendations.

(4) **Pressure drop in the baghouse controlling emission unit 1-HM-2 shall be in the range recommended by the manufacturer.**

**PSD Synthetic Minor Limit on VOC**

See Section D.

**2. Emission Limitations :****40 CFR 60 Subpart RR**

Compliance with the following requirement is part of compliance with 40 CFR 60 Subpart RR, however, compliance may be demonstrated through an alternative. See Section H, Alternate Operating Scenario # 2, for alternative limitation.

(1) 40 CFR 60.442(a)(1) requires VOC emissions from the line applicators, flashoff areas, and ovens to be no more than 0.20 lbs/lb of coating solids applied on the line on a weighted average basis for each calendar month.

**Compliance Demonstration Method:**

There are two ways to comply with this requirement (assuming an approved alternate scenario is not utilized). One way uses the following equations (or equivalents) and data for each month for the line to demonstrate compliance.

$$\text{Ratio of VOCs input to the solids applied} = \text{VOC input} / \text{Solids applied}$$

Where:

$$\text{VOC input} = S \text{ (lbs of coating input to the line} \times \text{VOC weight fraction of coating)}$$

and

$$\text{Solids applied} = S \text{ (lbs of coating input to the line} \times \text{Solids weight fraction of coating).}$$

If the **Ratio of VOCs input to the solids applied** is  $\leq 0.20$  lbs of VOC/lb of coating solids applied, then compliance with the requirement has been demonstrated.

Otherwise, some degree of emission reduction will be required. Use the following equation with the above ratio to determine the minimum required emission reduction.

$$\begin{aligned} \text{Minimum required emission reduction} = \\ & (\text{Ratio of VOCs input to the solids applied} - 0.20) \\ & / \text{Ratio of VOCs input to the solids applied} \times 100 \end{aligned}$$

If the actual VOC reductions for the month are greater than or equal to the minimum required emission reduction, then compliance with the requirement has been demonstrated.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****2. Emission Limitations (Continued):****40 CFR 60 Subpart RR****Compliance Demonstration Method (Continued):**

Since the permittee is using a solvent recovery device to reduce emissions, the actual VOC reduction for each calendar month can be calculated using the following equation.

$$\text{Actual VOC reduction} = \frac{\text{VOC recovered for the month}}{\text{VOC input for the month} \times 100}$$

**401 KAR 59:010**

- (2) Section 3(1) limits visible emissions from emission units 1-6, 1-HM-2, and 1-HM-5 to less than 20% opacity.
- (3) Section 3(2) limits emissions of particulate matter from each flue, conduit, or duct associated with emission units 1-6, 1-HM-2, and 1-HM-5 to a maximum of 2.34 lbs/hr if the process weight rate for the emission unit is 1,000 lbs/hr or less. If the process weight rate for any of the emission units is above 1,000 lbs/hr, Section 3(2) limits emissions of particulate matter from the unit to a maximum that can be determined (in lbs/hr) by taking the process weight rate for the applicator (in tons/hr), raising the process weight rate value to the 0.62 power, and multiplying by 3.59 (maximum =  $3.59 \times \text{process weight rate}^{0.62}$ ).

**Compliance Demonstration Method:**

Compliance with Operating Limitations (3) and (4) may be used to demonstrate compliance unless the Cabinet deems testing in accordance with 40 CFR 60 Appendix A, Method 9 or 5, necessary.

**PSD Synthetic Minor Limit on VOC**

See Section D.

**3. Testing Requirements:****40 CFR 60 Subpart RR**

The following requirements are part of compliance with 40 CFR 60 Subpart RR, however, compliance may be demonstrated through an alternative. See Section H, Alternate Operating Scenario # 2, for alternative requirements.

- (1) 40 CFR 60.444(a) requires coating lines that demonstrate compliance without consideration of any control devices to determine compliance by the procedures specified in 40 CFR 60.443(a). These procedures are described below.
  - (a) The weight fraction of VOCs and solids shall be determined for each coating applied using Reference Method 24 in Appendix A of 40 CFR 60 or by the coating manufacturer's formulation data. In the event of any inconsistency between a Method 24 test and the manufacturer's formulation data, the Method 24 test shall govern, as specified in 40 CFR 60.446(a).
  - (b) The ratio of VOCs input to the solids applied described in the Compliance Demonstration Method for Emission Limitation (1) shall be calculated for each calendar month.
  - (c) Compliance is demonstrated if the ratio in Testing Requirement (1)(b) is  $\leq 0.20$  lbs of VOC/lb of coating solids applied.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****3. Testing Requirements (Continued):****40 CFR 60 Subpart RR**

- (2) If compliance at a coating line for a calendar month cannot be demonstrated using the above procedures, then the performance test specified in 40 CFR 60.444(b) will be conducted to demonstrate compliance for the affected coating line since a solvent recovery device is utilized by the permittee. The following steps will be required to conduct the performance test specified in 40 CFR 60.444(b).
  - (a) Testing Requirements (1)(a) and (1)(b) shall be used to determine the weight fraction of VOCs and solids for each coating applied and the ratio of VOCs input to the solids applied.
  - (b) The minimum required emission reduction described in the Compliance Demonstration Method for Emission Limitation (1) shall be calculated for the calendar month.
  - (c) The cumulative amount of VOC recovered for the calendar month shall be determined from the monitoring device required by Operating Limitation (1).
  - (d) The actual VOC reduction described in the Compliance Demonstration Method for Emission Limitation (1) shall be calculated for the calendar month.
  - (e) Compliance is demonstrated if the actual VOC reduction meets or exceeds the minimum required emission reduction.

**401 KAR 59:210**

The following is required as part of compliance with 401 KAR 59:210, however, compliance may be demonstrated through an alternative. See Section H, Alternate Operating Scenario # 1, for alternative requirements.

- (3) The weight fraction of VOCs, density, and volume fraction of water and exempt solvent shall be determined for each coating applied using EPA reference methods or by the coating manufacturer's formulation data. In the event of any inconsistency between the EPA reference method test and the manufacturer's formulation data, the EPA reference method test shall govern.

**4. Specific Monitoring Requirements:****40 CFR 60 Subpart RR and 401 KAR 59:210**

The monitoring requirements from these regulations have been combined to denote the most stringent requirements resulting from application of the regulations. Compliance with the following requirements will demonstrate compliance with both regulations. Additional monitoring may be required if an Alternate Operating Scenario is utilized (see Section H, Alternate Operating Scenario # 1 or # 2, as warranted).

- (1) The amount of solvent recovered by the solvent recovery device shall be monitored each calendar month, as required by 40 CFR 60.445(c).
- (2) The amount and type of adhesive, coating, or solvent used (including exempt compounds) at each point of application shall be monitored daily, as required by 401 KAR 59:210 Section 4(8)(c) and 40 CFR 60.445(a).



**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****4. Specific Monitoring Requirements (Continued):****40 CFR 60 Subpart RR and 401 KAR 59:210**

- (3) The VOC, exempt solvent, water, and solids content (as applied) of each adhesive, coating, or solvent shall be monitored, as necessary for compliance demonstration for Operating Limitation (2) and Emission Limitation (1) and as required by 401 KAR 59:210 Section 4(8)(d) and 40 CFR 60.445(a).
- (4) The amount of surface preparation, clean-up, or wash-up solvent used daily (including exempt compounds) and the VOC content of each shall be monitored, as required by 401 KAR 59:210 Section 4(8)(f).
- (5) The oven temperatures for each line shall be monitored daily, as required by 401 KAR 59:210 Section 4(8)(g).

**401 KAR 59:010**

The following is required as part of compliance demonstration for Emission Limitations (2) and (3).

- (6) Inspect emission unit 1-HM-5 whenever operating problems are noted and routinely (at least once per month).
- (7) Monitor pressure drop in the baghouse controlling 1-HM-2 daily as part of compliance demonstration for Operating Limitation (4).

**5. Specific Record Keeping Requirements:****40 CFR 60 Subpart RR and 401 KAR 59:210**

The record keeping requirements from these regulations have been combined to denote the most stringent requirements resulting from application of the regulations. Compliance with the following requirements will demonstrate compliance with both regulations. Additional record keeping may be required if an Alternate Operating Scenario is utilized (see Section H, Alternate Operating Scenario # 1 or # 2, as warranted).

- (1) Specific Monitoring Requirements (1), (2), (3), (4), and (5) shall be recorded when monitored, as required by 401 KAR 59:210 Sections 4(8)(c), (d), (f), and (g) and 40 CFR 60.445(a) and (c).
- (2) The amount of VOCs applied in the coatings on the line shall be calculated and recorded each calendar month, as required by 40 CFR 60.445(b).
- (3) The applicable regulation numbers shall be recorded as required by 401 KAR 59:210 Sections 4(8)(a).
- (4) The application method and substrate type shall be recorded daily as required by 401 KAR 59:210 Sections 4(8)(b).
- (5) The date of application for each adhesive, coating, or solvent shall be recorded as required by 401 KAR 59:210 Sections 4(8)(e).
- (6) Compliance Demonstration for Emission Limitation (1) shall be calculated and recorded each calendar month for the coating line to comply with 40 CFR 60.447(a).
- (7) Compliance Demonstration for Operating Limitation (2) shall be calculated and recorded daily for the coating line to comply with 401 KAR 59:210 Sections 4(8).

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****5. Specific Record Keeping Requirements (Continued):****401 KAR 59:010**

The following is required as part of compliance demonstration for Emission Limitations (2) and (3).

(8) Maintenance that is part of demonstrating compliance with Operating Limitation (3) shall be recorded.

(9) Observations resulting from inspection of emission unit 1-HM-5 shall be recorded.

(10) Record pressure drop measurements observed as a result of Specific Monitoring Requirement (7).

**PSD Synthetic Minor Limit on VOC**

See Section D.

**6. Specific Reporting Requirements:****40 CFR 60 Subpart RR and 401 KAR 59:210**

The reporting requirements from these regulations have been combined to denote the most stringent requirements resulting from application of the regulations. Compliance with the following requirements will demonstrate compliance with both regulations. Additional reporting may be required if an Alternate Operating Scenario is utilized (see Section H, Alternate Operating Scenario # 1 or # 2, as warranted).

(1) All exceedances of Emission Limitation (1) shall be reported quarterly. If no such exceedances occur, a report stating this shall be submitted semiannually. Reports shall include VOC usage and recovery data and results of Record Keeping Requirement (6) as required by 40 CFR 60.447(a).

(2) All exceedances of Operating Limitation (2) shall be reported quarterly. If no such exceedances occur, a report stating this shall be submitted semiannually. Reports shall include the coating formulation data and results of Record Keeping Requirement (7) as required for compliance demonstration for 401 KAR 59:210.

**401 KAR 59:010**

As part of compliance demonstration for Emission Limitations (2) and (3), reporting requirement 5 in Section F shall be modified to require only a summary of deviations from permit requirements related to 401 KAR 59:010. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

**PSD Synthetic Minor Limit on VOC**

See Section D.

**7. Specific Control Equipment Operating Conditions:**

N/A

**8. Alternate Operating Scenarios:**

See Section H.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****EP02 (2-6, 2-HM-2, and 2-HM-4)****Pressure Sensitive Tape Coating Line #2 and Supporting Facilities.****Description:**

EP02 is a 60 inch wide hot melt coating line and supporting mixing, extruding, and storage for manufacture of pressure sensitive tape.

The coating line consists of the following units in the following order:

- 1<sup>st</sup> A paper or film unwind station.
- 2<sup>nd</sup> A roll coating hot melt adhesive applicator (emission unit 2-6).
- 3<sup>rd</sup> A chiller cylinder.
- 4<sup>th</sup> And finally, a tape rewind station.

The hot melt adhesive applicator (emission unit 2-6) utilizes some of the supporting facilities utilized by EP01 and also has some supporting facilities that are utilized solely by EP02. Supporting facilities utilized by EP02 but part of EP01 are a 30,000 gallon storage tank (emission unit 1-HM-3) and an unload vacuum pump (emission unit 1-HM-5). Supporting facilities utilized solely by EP02 are an extruder, a surge tank with a 700 gallon maximum utilization (emission unit 2-HM-4), and an extruder feed hopper (emission unit 2-HM-2) controlled by a baghouse.

The baghouse on the extruder feed hopper (emission unit 2-HM-2) is 1,900 scfm, has reverse jet bag cleaning, and has been assumed to have an overall control efficiency of 95%.

Construction commenced: projected for September 2000.

**APPLICABLE REGULATIONS:**

Regulation **401 KAR 60:005**, 40 CFR Part 60 standards of performance for new stationary sources, applies to sources that are subject to regulation **40 CFR 60 Subpart RR**, Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations, and other non-applicable subparts of 40 CFR Part 60.

Regulation **401 KAR 59:010**, New process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

**1. Operating Limitations:**  
**401 KAR 59:010**

The following limit shall apply to assure compliance with Emission Limitations (1) and (2).

- (1) Emission unit 2-6 and 2-HM-2 shall be operated and maintained consistent with manufacturer recommendations.
- (2) Pressure drop in the baghouse controlling emission unit 2-HM-2 shall be in the range recommended by the manufacturer.

**PSD Synthetic Minor Limit on VOC**

See Section D.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****2. Emission Limitations:****40 CFR 60 Subpart RR**

*Note: There are no emission limitations resulting from applicability of 40 CFR 60 Subpart RR on this line since potential emissions are below 50 tons per year.*

**401 KAR 59:010**

- (1) Section 3(1) limits visible emissions from emission units 2-6 and 2-HM-2 to less than 20% opacity.
- (2) Section 3(2) limits emissions of particulate matter from each flue, conduit, or duct associated with emission units 2-6 and 2-HM-2 to a maximum of 2.34 lbs/hr if the process weight rate for the emission unit is 1,000 lbs/hr or less. If the process weight rate for the emission unit is above 1,000 lbs/hr, Section 3(2) limits emissions of particulate matter from the unit to a maximum that can be determined (in lbs/hr) by taking the process weight rate for the applicator (in tons/hr), raising the process weight rate value to the 0.62 power, and multiplying by 3.59 (maximum =  $3.59 \times \text{process weight rate}^{0.62}$ ).

**Compliance Demonstration Method:**

Compliance with Operating Limitations (1) and (2) may be used to demonstrate compliance unless the Cabinet deems testing in accordance with 40 CFR 60 Appendix A, Method 9 or 5, necessary.

**PSD Synthetic Minor Limit on VOC**

See Section D.

**3. Testing Requirements:****40 CFR 60 Subpart RR**

- (1) The weight fraction of VOCs and solids shall be determined for each coating applied using Reference Method 24 in Appendix A of 40 CFR 60 or by the coating manufacturer's formulation data. In the event of any inconsistency between a Method 24 test and the manufacturer's formulation data, the Method 24 test shall govern, as specified in 40 CFR 60.446(a).

**4. Specific Monitoring Requirements:****40 CFR 60 Subpart RR**

- (1) The amount and type of all coatings applied during each calendar month on the coating line shall be monitored, as required by and 40 CFR 60.445(a).
- (2) The VOC content of all coatings applied during each calendar month on the coating line shall be monitored, as required by 40 CFR 60.445(a).

**401 KAR 59:010**

The following is required as part of compliance demonstration for Emission Limitations (1) and (2).

- (3) Monitor pressure drop in the baghouse controlling 2-HM-2 daily as part of compliance demonstration for Operating Limitation (2).

## **SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**5. Specific Record Keeping Requirements:**

**40 CFR 60 Subpart RR**

- (1) Specific Monitoring Requirements (1) and (2) shall be recorded each calendar month, as required by 40 CFR 60.445(a).
- (2) The amount of VOC applied in the coatings utilized on the line shall be calculated and recorded for each consecutive 12 consecutive month period, as required by 40 CFR 60.445(d).

**401 KAR 59:010**

The following is required as part of compliance demonstration for Emission Limitations (1) and (2).

- (3) Maintenance that is part of demonstrating compliance with Operating Limitation (1) shall be recorded.
- (4) Record pressure drop measurements observed as a result of Specific Monitoring Requirement (3).

**PSD Synthetic Minor Limit on VOC**

See Section D.

**6. Specific Reporting Requirements:**

**40 CFR 60 Subpart RR**

- (1) Unless EP02 is modified to apply coatings containing VOCs, a report stating that 40 CFR 60.442(a) did not apply to the line because all VOC emissions resulted from cleaning shall be submitted semiannually [in accordance with 40 CFR 60.447(b)].

**401 KAR 59:010**

As part of compliance demonstration for Emission Limitations (1) and (2), reporting requirement 5 in Section F shall be modified to require only a summary of deviations from permit requirements related to 401 KAR 59:010. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

**PSD Synthetic Minor Limit on VOC**

See Section D.

**7. Specific Control Equipment Operating Conditions:**

N/A

**8. Alternate Operating Scenarios:**

N/A

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****EP03 (3-1, 3-2, 3-3, 3-4, and 3-5)****Pressure Sensitive Tape Coating Line #3 and Supporting Facilities.****EP04 (4-1)****Pressure Sensitive Tape Coating Line #4 and Supporting Facilities.****Description:**

EP03 is a 60 inch wide acrylic coating line and supporting mixing and storage for manufacture of pressure sensitive tape.

The coating line for EP03 consists of the following units in the following order:

- 1<sup>st</sup> A paper or film unwind station.
- 2<sup>nd</sup> A corona treater (emission unit 3-1).
- 3<sup>rd</sup> A gravure release coating applicator (emission unit 3-2).
- 4<sup>th</sup> Oven #1 (emission unit 3-3) with 1 burner rated at 0.8 MM Btu/hr.
- 5<sup>th</sup> A roll coating acrylic top coat applicator (emission unit 3-4).
- 6<sup>th</sup> Oven #2 (emission unit 3-5) with 3 burners, each rated at 6.0 MM Btu/hr.
- 7<sup>th</sup> A chiller cylinder.
- 8<sup>th</sup> And finally, a tape rewind station.

The acrylic tie coat applicator (emission unit 3-4) is supported by the 10,000 gallon bulk storage tank and the spare 10,000 gallon bulk storage tank that supports EP01.

EP04 is a blown film prototype coating line and supporting mixing and storage for manufacture of pressure sensitive tape.

The coating line for EP04 consists of the following units in the following order:

- 1<sup>st</sup> An extruder die-former (emission unit 4-1).
- 2<sup>nd</sup> A cooling tower.
- 3<sup>rd</sup> And finally, a rewind station.

The maximum operating temperature for EP04 is 500°C.

EP03 construction commenced: January 1996.

EP04 construction commenced: September 1995.

**APPLICABLE REGULATIONS:**

Regulation **401 KAR 60:005**, 40 CFR Part 60 standards of performance for new stationary sources, applies to sources that are subject to regulation **40 CFR 60, Subpart RR**, Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations, and other non-applicable subparts of 40 CFR Part 60.

Regulation **401 KAR 59:210**, New fabric, vinyl and paper surface coating operations applies to each affected facility part of a major source in a county designated attainment commenced on or after June 24, 1992.

Regulation **401 KAR 59:010**, New process operations applicable to each affected facility associated with a process operation which is not subject to another emission standard with respect to particulates in Chapter 59 of 401 KAR commenced on or after July 2, 1975.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****1. Operating Limitations:****401 KAR 59:210**

The following is required as part of compliance with 401 KAR 59:210. Alternative compliance methods will require a control device and additional permitting action.

- (1) In accordance with Sections 4(5) and 6(1) of 401 KAR 59:210, the daily average VOC content of coatings delivered to the applicators on each coating line shall be less than 2.9 lbs/gal, excluding water and exempt solvent.

**Compliance Demonstration Method:**

Use the following equation (or equivalent) to determine compliance.

$$\text{Ratio of VOCs input to the volume of coatings applied minus water and exempt solvent} = \text{VOC input} / (\text{Volume applied} - \text{water \& exempt solvent})$$

Where:

$$\text{VOC input} = S \text{ [gals of coating input to the line} \times \text{VOC content (in lbs/gal) of coating]}$$

and

$$\begin{aligned} \text{Volume applied} - \text{water \& exempt solvent} = \\ S \text{ (gals of coating input to the line} - \text{gals of coating input to the line} \\ \times \text{the water volume fraction of the coating} - \text{gals of coating input to the line} \\ \times \text{the exempt solvent volume fraction of the coating}). \end{aligned}$$

**401 KAR 59:010**

The following limit shall apply to assure compliance with Emission Limitations (1) and (2).

- (2) Emission unit 4-1 shall be operated and maintained consistent with manufacturer recommendations.

**PSD Synthetic Minor Limit on VOC**

See Section D.

**2. Emission Limitations:****40 CFR 60 Subpart RR**

*Note: There are no emission limitations resulting from applicability of 40 CFR 60 Subpart RR on either of these lines since potential emissions are below 50 tons per year.*

**401 KAR 59:010**

- (1) Section 3(1) limits visible emissions from emission unit 4-1 to less than 20% opacity.
- (2) Section 3(2) limits emissions of particulate matter from each flue, conduit, or duct associated with emission unit 4-1 to a maximum of 2.34 lbs/hr if the process weight rate for the unit is 1,000 lbs/hr or less. If the process weight rate for emission unit 4-1 is above 1,000 lbs/hr, Section 3(2) limits emissions of particulate matter from the unit to a maximum that can be determined (in lbs/hr) by taking the process weight rate for the applicator (in tons/hr), raising the process weight rate value to the 0.62 power, and multiplying by 3.59 (maximum =  $3.59 \times \text{process weight rate}^{0.62}$ ).



**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****2. Emission Limitations (Continued):****401 KAR 59:010****Compliance Demonstration Method:**

Due to the nature of the applicator and the work enclosure surrounding the entire coating line, particulate matter emissions are expected to be negligible. However, if deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9 and 5, respectively, otherwise, compliance with Operating Limitation (2) may be used to demonstrate compliance.

**PSD Synthetic Minor Limit on VOC**

See Section D.

**3. Testing Requirements:****40 CFR 60 Subpart RR**

The following requirement is part of compliance with 40 CFR 60 Subpart RR.

- (1) The weight fraction of VOCs and solids shall be determined for each coating applied using Reference Method 24 in Appendix A of 40 CFR 60 or by the coating manufacturer's formulation data. In the event of any inconsistency between a Method 24 test and the manufacturer's formulation data, the Method 24 test shall govern, as specified in 40 CFR 60.446(a).

**401 KAR 59:210**

The following is required as part of compliance with 401 KAR 59:210, however, compliance may be demonstrated through an alternative. Other requirements are not identified in this permit since all alternatives would require utilization of a control device and additional permitting action.

- (2) The weight fraction of VOCs, density, and volume fraction of water and exempt solvent shall be determined for each coating applied using EPA reference methods or by the coating manufacturer's formulation data. In the event of any inconsistency between the EPA reference method test and the manufacturer's formulation data, the EPA reference method test shall govern.

**4. Specific Monitoring Requirements:****40 CFR 60 Subpart RR and 401 KAR 59:210**

The monitoring requirements from these regulations have been combined to denote the most stringent requirements resulting from application of the regulations. Compliance with the following requirements will demonstrate compliance with both regulations.

- (1) The amount and type of adhesive, coating, or solvent used (including exempt compounds) at each point of application shall be monitored daily, as required by 401 KAR 59:210 Section 4(8)(c) and 40 CFR 60.445(a).
- (2) The VOC content (as applied) of each adhesive, coating, or solvent shall be monitored daily, as required by 401 KAR 59:210 Section 4(8)(d) and 40 CFR 60.445(a).



**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****4. Specific Monitoring Requirements (Continued):****40 CFR 60 Subpart RR and 401 KAR 59:210**

- (3) The amount of surface preparation, clean-up, or wash-up solvent used daily (including exempt compounds) and the VOC content of each shall be monitored, as required by 401 KAR 59:210 Section 4(8)(f).
- (4) The oven temperatures for each line shall be monitored daily, as required by 401 KAR 59:210 Section 4(8)(g).

**5. Specific Record Keeping Requirements:****40 CFR 60 Subpart RR and 401 KAR 59:210**

The record keeping requirements from these regulations have been combined to denote the most stringent requirements resulting from application of the regulations. Compliance with the following requirements will demonstrate compliance with both regulations.

- (1) Specific Monitoring Requirements (1), (2), (3), and (4) shall be recorded when monitored, as required by 401 KAR 59:210 Sections 4(8)(c), (d), (f), and (g) and 40 CFR 60.445(a).
- (2) The amount of VOC applied in the coatings utilized on each line shall be calculated and recorded for each consecutive 12 consecutive month period, as required by 40 CFR 60.445(d).
- (3) The applicable regulation numbers shall be recorded as required by 401 KAR 59:210 Sections 4(8)(a).
- (4) The application method and substrate type shall be recorded daily as required by 401 KAR 59:210 Sections 4(8)(b).
- (5) The date of application for each adhesive, coating, or solvent shall be recorded as required by 401 KAR 59:210 Sections 4(8)(e).
- (6) Compliance Demonstration for Operating Limitation (1) shall be calculated and recorded daily for each coating line to comply with 401 KAR 59:210 Sections 4(8).

**401 KAR 59:010**

The following is required as part of compliance demonstration for Emission Limitations (1) and (2).

- (7) Maintenance that is part of demonstrating compliance with Operating Limitation (2) shall be recorded.

**PSD Synthetic Minor Limit on VOC**

See Section D.

**6. Specific Reporting Requirements:****40 CFR 60 Subpart RR**

- (1) A report stating that 40 CFR 60.442(a) did not apply to each respective line because VOC emissions from the line were not more than 50 tons per 12 consecutive month period shall be submitted semiannually [in accordance with 40 CFR 60.447(b)].

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**6. Specific Reporting Requirements (Continued):**

**401 KAR 59:210**

The following is required in accordance with Section F #5 of this permit as part of compliance demonstration for Operating Limitation (1).

- (2) All exceedances of Operating Limitation (1) shall be reported quarterly. If no such exceedances occur, a report stating this shall be submitted semiannually. Reports shall include the coating formulation data and results of Record Keeping Requirement (6) as required for compliance demonstration for 401 KAR 59:210.

**401 KAR 59:010**

As part of compliance demonstration for Emission Limitations (2) and (3), reporting requirement 5 in Section F shall be modified to require only a summary of deviations from permit requirements related to 401 KAR 59:010. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

**PSD Synthetic Minor Limit on VOC**

See Section D.

**7. Specific Control Equipment Operating Conditions:**

N/A

**8. Alternate Operating Scenarios:**

See Section H.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****EP05 (8B) Indirect Heat Exchanger.****Description:**

EP05 is a Clever Brooks-CB700-200 Boiler with a rated capacity of 8.37 MM Btu/hr.

Natural gas is utilized in the boiler to produce process heat.

Construction commenced: **October 1994**

**APPLICABLE REGULATIONS:**

Regulation **401 KAR 59:015**, New indirect heat exchangers, applicable to affected facilities with a capacity of 250 million BTU per hour heat input or less commenced after August 9, 1972, limits particulate and sulfur dioxide emissions.

Regulation **401 KAR 59:005**, General provisions, provides for the establishment of monitoring requirements, performance testing requirements, and other general provisions as related to new sources effective December 1, 1982.

**1. Operating Limitations:****401 KAR 59:015**

To demonstrate continuous compliance with Emission Limits (1) - (3), the following shall apply.

- (1) Only natural gas shall be burned.
- (2) Proper operation and maintenance shall be practiced.

**PSD Synthetic Minor Limit on VOC**

See Section D.

**2. Emission Limitations:****401 KAR 59:015**

The following emission limitations will apply unless the permittee petitions the Cabinet for alternative emission limitations according to Section 3(3) of the above listed regulation.

- (1) Section 4(1)(c) limits emissions of **particulate matter** to no more than 0.584 lbs / MM Btu actual heat input.

Note: The limit is determined by substituting the maximum heat input rating for all indirect heat exchangers greater than or equal to 1 MM Btu/hr heat input capacity at the source (8.37) into the following equation.

$$PM = 0.9634 \times (\text{total heat input capacity in MM Btu/hr})^{-0.2356}$$

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)****2. Emission Limitations (Continued):****401 KAR 59:015**

- (2) Section 4(2) limits visible emissions to a maximum of **20% opacity** except for emissions occurring during cleaning of the fire box, blowing of soot, and building of a new fire.
- (a) While cleaning of the fire box or blowing of soot is being done, visible emissions are limited to a maximum of 40% opacity for not more than 6 consecutive minutes in any 60 consecutive minutes.
- (b) There is no limit to visible emissions opacity while building a new fire provided a manufacturer recommended method is used and the manufacturer recommended time frame for bringing the boiler up to operating conditions is not exceeded.
- (3) Section 5(1)(c) limits emissions of any gas which contains **sulfur dioxide** to no more than 3.23 lbs/MM Btu actual heat input.

Note: The limit is determined by substituting the maximum heat input rating for all indirect heat exchangers greater than or equal to 1 MM Btu/hr heat input capacity at the source (8.37) into the following equation.

$$\text{SO}_2 = 7.7223 \times (\text{total heat input capacity in MM Btu/hr})^{-0.4106}$$

**Compliance Demonstration Method:**

If deemed necessary, the Cabinet shall require testing in accordance with 40 CFR 60 Appendix A, Methods 9, 5, and 6, respectively.

If operated in accordance with Operating Limitations (1) and (2), compliance has already been demonstrated.

**PSD Synthetic Minor Limit on VOC**

See Section D.

**3. Testing Requirements:**

N/A

**4. Specific Monitoring Requirements:**

N/A

**5. Specific Record Keeping Requirements:****401 KAR 59:015**

To demonstrate compliance with Operating Limitation (1),

- (1) A record of the type of fuel burned shall be maintained.

To demonstrate compliance with Operating Limitation (2),

- (2) A copy of the manufacturer's operating and maintenance specifications shall be maintained and made available to appropriate division personnel.
- (3) Any operation or maintenance that is less stringent than the manufacturer's minimum recommendation shall be recorded.
- (4) Dates and descriptions of maintenance that is part of demonstrating compliance with Operating Limitation (2) shall be recorded.

**SECTION B - EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**

**5. Specific Record Keeping Requirements (Continued):**

**PSD Synthetic Minor Limit on VOC**

See Section D.

**6. Specific Reporting Requirements:**

**401 KAR 59:015**

As part of compliance demonstration for Emission Limitations (1) and (2), reporting requirement 5 in Section F shall be modified to require only a summary of permit deviations for this emission point. This shall be done every 6 months and certified by a responsible official as specified in Section F requirement 5. See reporting requirements 6, 7, and 8 from Section F for additional reporting requirements.

**401 KAR 59:005**

Section 3(1)(d) requires written notification of any physical or operational change which may increase the emission rate of any air pollutant to which a standard applies to be furnished to the Cabinet. This notice shall be postmarked 60 days before the change is commenced or as soon as practicable. The notice shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change.

**PSD Synthetic Minor Limit on VOC**

See Section D.

**7. Specific Control Equipment Operating Conditions:**

N/A

**8. Alternate Operating Scenarios:**

N/A

**SECTION C - INSIGNIFICANT ACTIVITIES**

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 50:035, Section 5(4). While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

	<u>Description</u>	<u>Generally Applicable Regulation</u>
1.	Maintenance Welder	None
2.	Direct Heating Units 7 @ a rated capacity of 0.094 MM Btu/hr 4 @ a rated capacity of 0.194 MM Btu/hr 1 @ a rated capacity of 0.25 MM Btu/hr 4 @ a rated capacity of 0.375 MM Btu/hr 1 @ a rated capacity of 0.65 MM Btu/hr 1 @ a rated capacity of 3.31 MM Btu/hr	None
3.	Purchased/Recovered Toluene Storage Tank Vented to the Carbon Bed Adsorber with a 7,500 Gallon Capacity	None
4.	Quality Control Test Hood	None
5.	Waste Material Storage Area	None

## SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

**PSD Synthetic Minor Limits** have voluntarily been accepted to avoid applicability of 401 KAR 51:017, Prevention of significant deterioration of air quality, requirements. Exceedance of the major source emission level, as defined in 401 KAR 51:017 will trigger additional requirements and regulations.

### Emission Limitations:

#### **Plantwide VOC synthetic minor limitation**

1. For any 12 consecutive month period, plantwide VOC emissions shall be less than or equal to 244 tons as demonstrated on a [weekly](#) basis.

#### **Compliance Demonstration Method:**

Except for mixing tank and room the emissions, compliance can be demonstrated through a combination of mass balances and AP-42 emission estimates or division approved test results. Mixing emissions have been determined based on a combination of AP-42 emission estimate, NSPS guidance, engineering judgement, and an assumed mixing room air concentration provided by the permittee.

$$\begin{aligned} \text{VOC emitted (lbs)} = & S [\text{VOC applied on tape lines}] + S [\text{VOC from tanks}] \\ & + S [\text{VOC from mixing room}] + S [\text{VOC from clean-up solvents used}] \\ & - S [\text{VOC recovered}] \end{aligned}$$

Substitution into the VOC equation will result in the following equation.

$$\begin{aligned} \text{VOC emitted (lbs)} = & \text{lbs of VOC utilized by the tape lines} \\ & + \text{gals of toluene input to the 175 gal mixing tank} \\ & \quad \times \text{emission factor for mixing tank and room} \\ & + \text{gross gals of toluene released from the 7,500 gal storage tank} \\ & \quad \times \text{AP-42 derived emission factor for the 7,500 gal storage tank} \\ & + \text{lbs of VOC utilized in clean-up} - \text{VOC recovered} \end{aligned}$$

Absent test results, the following (or equivalent) shall be used in the above equation.

Lbs of VOC utilized on each tape line	=	direct measurement or gallons x VOC content
Emission factor for mixing tank and room	=	2.8 lbs/1000 gallons input
Lbs of VOC input to release coat mixing	=	direct measurement
AP-42 derived emission factor for the 7,500 gal storage tank	=	0.77 lbs/1000 gallons input
Gross gals of toluene released from the 7,500 gal storage tank	=	direct measurement (may be identified from release coat mixing input if no other use point)
Lbs of VOC utilized in clean-up	=	gallons used x VOC content
VOC recovered	=	direct measurement of lbs recovered or gal x density

**SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS (CONTINUED)****Operating Limitations:**

The following is required to make the above emission limits enforceable as a practical matter and compliance with this limit demonstrates compliance with the Emission Limitation in this Section.

**Plantwide VOC synthetic minor limitation**

1. Raw material use shall be such that VOC emitted, calculated using the above compliance demonstration method for VOC under Emission Limitations in Section D, from the source during any [52](#) consecutive [week](#) period is **< or = to** 488,000 lbs (demonstrated [weekly](#)).

**Testing Requirements:**

N/A

**Specific Record Keeping Requirements:**

**Synthetic minor limitations** require the following to be recorded [weekly](#).

1. Lbs or gallons of each adhesive, coating, solvent, or clean-up material delivered to coating lines. *Also required less frequently as part of Section B requirements.*
2. The VOC percentage (by weight) or the VOC content (in lbs/gal), as appropriate for demonstrating compliance, of each adhesive, coating, solvent, or clean-up material used. *Also required less frequently as part of Section B requirements.*
3. Lbs or gallons of toluene purchased and stored for use in coating lines.
4. Lbs or gallons of toluene recovered for reuse in coating lines. *Also required less frequently as part of Section B requirements.*
5. The amount of VOC emitted each [week](#) calculated using the compliance demonstration method under Emission Limitations in Section D.
6. The total VOC emitted for each [52](#) consecutive [week](#) period.

**Specific Reporting Requirements:**

**Synthetic minor limitations** require the following to be reported [monthly](#). These reports shall be certified by a responsible official, and delivered by electronic media (such as fax or e-mail) or postmarked to the Division's Frankfort Regional Office within thirty days following the end of each [month](#). These reports may also be delivered by courier as long as the reports are stamped received as indicated above. The certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the documents are true, accurate, and complete.

1. Any deviations from requirements in this section shall be reported.
2. The VOC emission calculation shall be reported.
3. The total VOC emission for each [52 week](#) period ending in the [month](#) shall be reported.



## **SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS**

1. Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

## **SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS**

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
  - a. Date, place as defined in this permit, and time of sampling or measurements.
  - b. Analyses performance dates;
  - c. Company or entity that performed analyses;
  - d. Analytical techniques or methods used;
  - e. Analyses results; and
  - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality. [401 KAR 50:035, Permits, Section 7(1)(d)2 and 401 KAR 50:035, Permits, Section 7(2)(c)]
3. In accordance with the requirements of Regulation 401 KAR 50:035, Permits, Section 7(2)(c) the permittee shall allow the Cabinet or authorized representatives to perform the following:
  - a. Enter upon the premises where a source is located or emissions-related activity is conducted, or where records are kept;
  - b. Have access to and copy, at reasonable times, any records required by the permit:
    - i. During normal office hours, and
    - ii. During periods of emergency when prompt access to records is essential to proper assessment by the Cabinet;
  - c. Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times shall include, but are not limited to the following:
    - i. During all hours of operation at the source,
    - ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
    - iii. During an emergency; and
  - d. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements. Reasonable times shall include, but are not limited to the following:
    - i. During all hours of operation at the source,
    - ii. For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
    - iii. During an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

**SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

5. Reports of any monitoring required by this permit shall be submitted to the division's [Frankfort](#) Regional Office at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation.

The reports are due within 30 days after the end of each six-month reporting period that commences on the initial issuance date of this permit. The permittee may shift to semi-annual reporting on a calendar year basis upon approval of the regional office. If calendar year reporting is approved, the semi-annual reports are due January 30th and July 30th of each year. All reports shall be certified by a responsible official pursuant to Section 6(1) of 401 KAR 50:035, Permits. All deviations from permit requirements shall be clearly identified in the reports.

6. a. In accordance with the provisions of Regulation 401 KAR 50:055, Section 1 the owner or operator shall notify the Division for Air Quality's [Frankfort](#) Regional Office concerning startups, shutdowns, or malfunctions as follows:
1. When emissions during any planned shutdowns and ensuing startups will exceed the standards notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
  2. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards notification shall be made as promptly as possible by telephone (or other electronic media) and shall cause written notice upon request.
- b. In accordance with the provisions of Regulation 401 KAR 50:035, Section 7(1)(e)2, the owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F Item 6a. above) to the Division for Air Quality's [Frankfort](#) Regional Office within [30 days](#). Other deviations from permit requirements shall [be included in the semiannual report required by Section F Item 5](#).

**SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS (CONTINUED)**

7. Pursuant to Regulation 401 KAR 50:035, Permits, Section 7(2)(b), the permittee shall certify compliance with the terms and conditions contained in this permit, annually on the permit issuance anniversary date or by January 30th of each year if calendar year reporting is approved by the regional office, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an approved alternative) to the Division for Air Quality's [Frankfort](#) Regional Office and the U.S. EPA in accordance with the following requirements:
- Identification of each term or condition of the permit that is the basis of the certification;
  - The compliance status regarding each term or condition of the permit;
  - Whether compliance was continuous or intermittent; and
  - The method used for determining the compliance status for the source, currently and over the reporting period, pursuant to 401 KAR 50:035, Section 7(1)(c),(d), and (e).
  - For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.
  - The certification shall be postmarked by the thirtieth (30) day following the applicable permit issuance anniversary date, or by January 30th of each year if calendar year reporting is approved by the regional office. **Annual compliance certifications should be mailed to the following addresses:**

**Division for Air Quality  
[Frankfort](#) Regional Office  
[643 Teton Trail, Suite B](#)  
[Frankfort, KY 40601](#)**

**U.S. EPA Region IV  
Air Enforcement Branch  
Atlanta Federal Center  
61 Forsyth St.  
Atlanta, GA 30303-8960**

**Division for Air Quality  
Central Files  
803 Schenkel Lane  
Frankfort, KY 40601**

8. In accordance with Regulation 401 KAR 50:035, Section 23, the permittee shall provide the division with all information necessary to determine its subject emissions within thirty (30) days of the date the KEIS emission report is mailed to the permittee.
9. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), results of performance test(s) required by the permit shall be submitted to the division by the source or its representative within forty-five days after the completion of the fieldwork.

**SECTION G - GENERAL CONDITIONS**(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. A noncompliance shall be (a) violation(s) of state regulation 401 KAR 50:035, Permits, Section 7(3)(d) [and is also a violation of Federal Statute 42 USC 7401 through 7671q \(the Clean Air Act\)](#) and is grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition.
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause. The permit will be reopened for cause and revised accordingly under the following circumstances:
  - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to Regulation 401 KAR 50:035, Section 12(2)(c);
  - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
  - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit;

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish to the division, in writing, information that the division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. [401 KAR 50:035, Permits, Section 7(2)(b)3e and 401 KAR 50:035, Permits, Section 7(3)(j)]
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the permitting authority.

**SECTION G - GENERAL CONDITIONS (CONTINUED)**

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit. [401 KAR 50:035, Permits, Section 7(3)(k)]
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance. [401 KAR 50:035, Permits, Section 7(3)(e)]
8. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States.
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6). [401 KAR 50:035, Permits, Section 7(3)(h)]
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance. [401 KAR 50:035, Permits, Section 8(3)(b)]
11. This permit shall not convey property rights or exclusive privileges. [401 KAR 50:035, Permits, Section 7 (3)(g)]
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources and Environmental Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry. [401 KAR 50:035, Permits, Section 7(2)(b)5]
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders. [401 KAR 50:035, Permits, Section 8(3)(a)]
15. Permit Shield: Except as provided in State Regulation 401 KAR 50:035, Permits, compliance by the affected facilities listed herein with the conditions of this permit shall be deemed to be compliance with all applicable requirements identified in this permit as of the date of issuance of this permit.
16. All previously issued construction and operating permits are hereby subsumed into this permit.

**SECTION G - GENERAL CONDITIONS (CONTINUED)****(b) Permit Expiration and Reapplication Requirements**

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the division. [401 KAR 50:035, Permits, Section 12]

**(c) Permit Revisions**

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of Regulation 401 KAR 50:035, Section 15.
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority thirty (30) days in advance of the transfer.

**(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements  
**For EP02****

1. Construction of process and/or air pollution control equipment authorized by this permit shall be conducted and completed only in compliance with the conditions of this permit.
2. Within thirty (30) days following commencement of construction, and within fifteen (15) days following start-up, and attainment of the maximum production rate specified in the permit application, or within fifteen (15) days following the issuance date of this permit, whichever is later, the permittee shall furnish to the Division for Air Quality's [Frankfort](#) Regional Office in writing, with a copy to the division's Frankfort Central Office, notification of the following:
  - a. The date when construction commenced.
  - b. The date of start-up of the affected facilities listed in this permit.
  - c. The date when the maximum production rate specified in the permit application was achieved.

**SECTION G - GENERAL CONDITIONS (CONTINUED)**

3. Pursuant to State Regulation 401 KAR 50:035, Permits, Section 13(1), unless construction is commenced on or before 18 months after the date of issue of this permit, or if construction is commenced and then stopped for any consecutive period of 18 months or more, or if construction is not completed within eighteen (18) months of the scheduled completion date, then the construction and operating authority granted by this permit for those affected facilities for which construction was not completed shall immediately become invalid. Extensions of the time periods specified herein may be granted by the division upon a satisfactory request showing that an extension is justified.
4. Operation of the affected facilities for which construction is authorized by this permit shall not commence until compliance with the applicable standards specified herein has been demonstrated pursuant to 401 KAR 50:055, except as provided in Section I of this permit.
5. This permit shall allow time for the initial start-up, operation, and compliance demonstration of the affected facilities listed herein. However, within sixty (60) days after achieving the maximum production rate at which the affected facilities will be operated but not later than 180 days after initial start-up of such facilities, the permittee shall conduct a performance demonstration on the affected facilities in accordance with Regulation 401 KAR 50:055, General compliance requirements.

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

(f) Emergency Provisions

1. An emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
  - a. An emergency occurred and the permittee can identify the cause of the emergency;
  - b. The permitted facility was at the time being properly operated;
  - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
  - d. The permittee notified the division as promptly as possible and submitted written notice of the emergency to the division within two working days after the time when emission limitations were exceeded due to the emergency. The notice shall meet the requirements of 401 KAR 50:035, Permits, Section 7(1)(e)2, and include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken. This requirement does not relieve the source of any other local, state or federal notification requirements.



## SECTION G - GENERAL CONDITIONS (CONTINUED)

2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement.
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof. [401 KAR 50:035, Permits, Section 9(3)]

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:  
**RMP Reporting Center**  
**P.O. Box 3346**  
**Merrifield, VA, 22116-3346**

2. If requested, submit additional relevant information by the division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.
  - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

## SECTION H - ALTERNATE OPERATING SCENARIOS

The alternate operating scenarios set forth below have been approved by the division based on information supplied with the application and during the application review process. The terms and conditions of each alternate operating scenario have been developed to ensure compliance with the applicable regulations. The permittee, when making a change from one operating scenario to another, shall record contemporaneously in a log at the permitted facility a record of the scenario under which the facility is operating. The permit shield, as provided in Section G, Condition (a)15, shall extend to each alternate operating scenario set forth in this Section. All conditions not specified under an alternate operating scenario shall remain unchanged from their permit values or requirements.

### **Alternate Operating Scenario # 1**

Alternate Operating Scenario # 1 allows for compliance with 401 KAR 59:210 through achievement of a daily overall VOC control efficiency of at least 85% instead of line applicators delivering coatings with an average daily VOC content less than 2.9 lbs/gal, excluding water and exempt solvent. This scenario is available to EP01, Pressure Sensitive Tape Coating Line 1.

### **APPLICABLE REGULATION:**

Regulation **401 KAR 59:210**, New fabric, vinyl and paper surface coating operations applies to each affected facility part of a major source in a county designated attainment commenced on or after June 24, 1992.

#### **1. Operating Limitations:**

##### **401 KAR 59:210**

When combined with subsequent limitations and requirements, the following limitation may be substituted for Operating Limitation (2) on page 3 of this permit as part of compliance demonstration with 401 KAR 59:210. Monitoring, record keeping, and reporting described in Section B shall still apply when using this alternative unless a substitute is noted below.

- (2) Capture and control of VOC emissions from the line shall be such that VOC discharge into the atmosphere from all release points is no more than 15% by weight of the total VOCs input daily into the coating line (including mixing, storage, and clean-up).

##### **Compliance Demonstration Method:**

See Compliance Demonstration Method for the Emission Limitation below.

#### **2. Emission Limitations:**

##### **401 KAR 59:210**

As part of the alternative for Operating Limitation (2) on page 3 of this permit, the following limitation shall apply as part of compliance demonstration with 401 KAR 59:210. This limitation is in addition to the Emission Limitations in Section B for EP01.

- (4) Section 3 limits daily VOC discharge into the atmosphere to a maximum of 15% by weight of the total daily VOCs input into the coating line (including mixing, storage, and clean-up).

**SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)****Alternate Operating Scenario # 1 (Continued)****2. Emission Limitations (Continued):****Compliance Demonstration Method:**

Total VOCs input into the line over a 24-hour period shall be controlled so that no more than 15% by weight is emitted into the atmosphere. Use the following equations (or equivalents) to demonstrate weight percent of VOCs emitted.

$$\text{Weight percentage of VOCs emitted} = \text{VOC emitted} / \text{VOC input} \times 100$$

Where:

$$\begin{aligned} \text{VOC input} = & S \text{ (lbs of adhesive, coating, or solvent input to the line} \\ & \times \text{VOC weight \% of adhesive, coating, or solvent)} \\ & + \text{gals of toluene input to the 175 gal mixing tank} \\ & \times \text{emission factor for mixing tank and room} \\ & + \text{gross gals of toluene released from the 7,500 gal storage tank} \\ & \times \text{AP-42 derived emission factor for the 7,500 gal storage tank} \\ & + S \text{ (lbs of cleaning solution used for the line} \times \text{VOC weight \% of cleaning solution)} \end{aligned}$$

$$\text{VOC emitted} = \text{VOC input} - \text{VOC recovered}$$

$$\begin{aligned} \text{Emission factor for mixing tank and room} = \\ 2.8 \text{ lbs/1000 gallons input (absent testing)} \end{aligned}$$

$$\begin{aligned} \text{AP-42 derived emission factor for the 7,500 gal storage tank} = \\ 0.77 \text{ lbs/1000 gross gallons released (at permit issuance)} \end{aligned}$$

And,

$$\begin{aligned} \text{Lbs of cleaning solution used for the line} = \\ \text{total lbs of cleaning solution used} \times \text{proportion distributed to the line.} \end{aligned}$$

**3. Testing Requirements:****401 KAR 59:210**

As part of the alternative for Operating Limitation (2) on page 3 of this permit, the following requirement shall be substituted for Testing Requirement (3) as part of compliance demonstration with 401 KAR 59:210.

- (3) The weight fraction of VOCs shall be determined for each coating applied using Reference Method 24 in Appendix A of 40 CFR 60 or by the coating manufacturer's formulation data. In the event of any inconsistency between a Method 24 test and the manufacturer's formulation data, the Method 24 test shall govern.

## SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

### Alternate Operating Scenario # 1 (Continued)

**4. Specific Monitoring Requirements:**

**40 CFR 60 Subpart RR and 401 KAR 59:210**

As part of the alternative for Operating Limitation (2) on page 3 of this permit, the following requirement shall be substituted for Specific Monitoring Requirement (1) as part of compliance demonstration with 40 CFR 60 Subpart RR and 401 KAR 59:210.

- (1) The amount of solvent recovered by the solvent recovery device shall be monitored daily, as required for compliance demonstration with Emission Limitation (4) and by 40 CFR 60.445(c).

**SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)****Alternate Operating Scenario # 2**

Alternate Operating Scenario # 2 allows for compliance with 40 CFR 60 Subpart RR through achievement of an overall VOC emission reduction of at least 90% over a calendar month instead of line applicators delivering coatings with an average monthly VOC content no greater than 0.2 lbs/lb of coating solids applied. This scenario is available to EP01, Pressure Sensitive Tape Coating Line 1.

**APPLICABLE REGULATION:**

Regulation **401 KAR 60:005**, 40 CFR Part 60 standards of performance for new stationary sources, applies to sources that are subject to regulation **40 CFR 60 Subpart RR**, Standards of Performance for Pressure Sensitive Tape and Label Surface Coating Operations, and other non-applicable subparts of 40 CFR Part 60.

**2. Emission Limitations:****40 CFR 60 Subpart RR**

When combined with subsequent requirements, the following limitation may be substituted for Emission Limitation (1) on page 4 of this permit as part of compliance demonstration with 40 CFR 60 Subpart RR. The operating limitations, monitoring, record keeping, and reporting described in Section B shall still apply when using this alternative.

- (1) 40 CFR 60.442(a)(2)(i) requires an overall VOC reduction from the line applicators, flashoff areas, and ovens of at least 90% as calculated over a calendar month.

**Compliance Demonstration Method:**

Total VOCs input into the line over a calendar month shall be controlled so that at least 90% by weight is not emitted into the atmosphere. Use the following equations (or equivalents) to demonstrate weight percent of VOCs recovered.

$$\text{Weight percentage of VOCs recovered} = \text{mass of VOC recovered} / \text{VOC input} \times 100$$

Where:

$$\text{VOC input} = S \text{ (lbs of adhesive, coating, or solvent input to the line} \\ \times \text{VOC weight \% of adhesive, coating, or solvent).}$$

**3. Testing Requirements:****40 CFR 60 Subpart RR**

As part of the alternative for Emission Limitation (1) on page 4 of this permit, the following requirements shall be substituted for Testing Requirements (1) and (2) as part of compliance demonstration with 40 CFR 60 Subpart RR.

- (1) (a) Determine the weight fraction of VOCs for each coating applied using Reference Method 24 in Appendix A of 40 CFR 60 or by the coating manufacturer's formulation data. In the event of any inconsistency between a Method 24 test and the manufacturer's formulation data, the Method 24 test shall govern.

## SECTION H - ALTERNATE OPERATING SCENARIOS (CONTINUED)

### Alternate Operating Scenario # 2 (Continued)

3. Testing Requirements (Continued):

**40 CFR 60 Subpart RR**

- (1) (b) Inventory VOC usage and VOC recovery for the calendar month(s) for which this operating scenario is applicable.
- (2) Determine the weight percentage of VOCs recovered described in the alternate Compliance Demonstration Method for Emission Limitation (1), above, for the calendar month. Compliance is demonstrated if the actual VOC recovered meets or exceeds 90%.

## SECTION I - COMPLIANCE SCHEDULE

N/A